

Title (en)

METHOD FOR CONTROLLING THE REFRIGERANT MASS FLOW OF A COMPRESSOR

Title (de)

VERFAHREN ZUM REGELN DES KÄLTEMITTEL-MASSENSTROMS EINES VERDICHTERS

Title (fr)

PROCÉDÉ DE RÉGULATION DU FLUX MASSIQUE DE FLUIDE FRIGORIGÈNE D'UN COMPRESSEUR

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Application

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Abstract (en)

[origin: WO2007134665A1] A method for controlling the refrigerant mass flow of a compressor, in particular of an axial piston compressor, in particular also for motor vehicle air conditioning systems, in particular also for CO₂ as refrigerant, which has a drive shaft and a pivoting plate which can be adjusted with regard to its inclination to the drive shaft and which is arranged in a motor chamber of the compressor essentially defined by a housing of said compressor and which by its angle of deflection relative to the drive shaft defines the piston stroke of the compressor, wherein approximately one balance of moments is obtained between a moment M_{sw} produced by masses moved in rotation and a moment M_{k,ges} produced by masses moved in translation for at least one angle of deflection a_{gl} of the pivoting plate, and wherein the product of the compressor speed, of the suction gas density p, and of the piston stroke s for different compressor speeds n is automatically maintained more or less constant, at least locally, in particular for compressor speeds n between 600 and 9000 r.p.m., in particular for compressor speeds between 2500 and 7000 r.p.m., while a pressure p_c occurring in the motor chamber is likewise maintained approximately constant, as well as a compressor which is suitable for performing the method.

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